

A.T. Kearney, Inc.
699 Prince Street
P.O. Box 1405
Alexandria, Virginia 22313
703 836 6210

Management
Consultants

MND 092 308 856

February 10, 1987

ATKEARNEY

Ms. Pat Vogtman
Regional Project Officer
U.S. Environmental Protection Agency
230 South Dearborn Street
Chicago, IL 60604

Reference: EPA Contract No. 68-01-7038; Work Assignment No.
R05-02-35; Franklin Manufacturing Company, St.
Cloud, MN; Preliminary Review/Visual Site
Inspection Report

Dear Ms. Vogtman:

Enclosed please find the Preliminary Review/Visual Site Inspection Report for the Franklin Manufacturing Company in St. Cloud, MN. This report represents the results of the preliminary review (PR) and the visual site inspection (VSI) portions of the RCRA Facility Assessment (RFA) for this facility. The PR report form, VSI trip report, VSI field notes, VSI photo log, and PR notepad are included as attachments to this report. Please note that because the PR notepad was completed for this facility prior to the decision by Region V to delete the use of the notepad in the RFA process, it has been included with this report.

The PR and VSI resulted in the identification of 16 solid waste management units (SWMUs). The primary SWMU of concern is the Former Wastewater Lagoon (SWMU 13). This unit has a high potential to release hazardous constituents to the soil and subsequently to the groundwater because of the moderate to high permeability of the glacial outwash sands and gravels beneath the unit. It is suggested that a subsurface investigation be conducted to determine the nature and extent of contamination. Because there are residential wells within one quarter mile downgradient of the unit, there is a possible hazard to nearby residents.

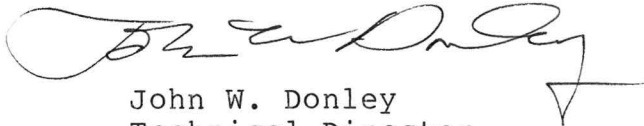
Several units were determined to have a high potential for releases of hazardous constituents to air. These include the Paint System #2 Wastewater Tanks (SWMUs 7, 8, and 9), the Paint System #4 Wastewater Tanks (SWMUs 10, 11, and 12), and the Blu-Surf Incinerator (SWMU 15). The Minnesota Pollution Control Agency (MPCA) currently has plans to permit the emissions from these units. It is suggested that emissions from these units be monitored as part of the permitting process.

Ms. Pat Vogtman
February 10, 1987
Page 2

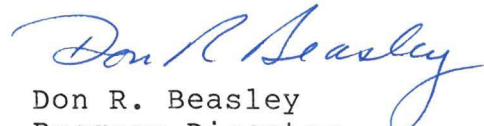
The Empty Drum Storage Area (SWMU 5) was determined to have a potential for release to soils if drums were to leak or there was spillage. It is suggested that surface soils be sampled to determine if there has been a release from this unit. The sampling could be conducted as part of the subsurface investigation of SWMU 13.

If you have any questions, please call me or Gayle Kline, the Work Assignment Manager (who can be reached at 703/836-6210).

Sincerely,



John W. Donley
Technical Director



Don R. Beasley
Program Director

cc: C. Slaustas, EPA Region V
J. Grieve
G. Kline
B. Ross, PRA

PRELIMINARY REVIEW/VISUAL SITE INSPECTION REPORT

FRANKLIN MANUFACTURING COMPANY
ST. CLOUD, MINNESOTA
MND092304856

PREPARED FOR
U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION V
230 SOUTH DEARBORN STREET
CHICAGO, ILLINOIS 60604

PREPARED BY
A.T. KEARNEY, INC.
699 PRINCE STREET
ALEXANDRIA, VIRGINIA 22313

AND
POPE-REID ASSOCIATES, INC.
245 E. 6th STREET, SUITE 813
ST. PAUL, MINNESOTA 55101

CONTRACT NO. 68-01-7038
WORK ASSIGNMENT NO. R05-02-35

FEBRUARY 1987

PRELIMINARY REVIEW/VISUAL SITE INSPECTION REPORT
FOR
FRANKLIN MANUFACTURING COMPANY
ST. CLOUD, MINNESOTA

TABLE OF CONTENTS

	<u>Page</u>
I. EXECUTIVE SUMMARY	1
II. INTRODUCTION	3
III. FACILITY AND PROCESS DESCRIPTION	4
A. General Information	4
B. Waste Streams	7
IV. ENVIRONMENTAL SETTING	9
A. Climate and Meteorology	9
B. Floodplain and Surface Water	9
C. Geology and Soils	9
D. Groundwater	10
E. Receptor Information	12
V. RELEASE PATHWAYS	14
A. Soil/Groundwater	14
B. Surface Water	14
C. Air	15
D. Subsurface Gas	15
VI. SOLID WASTE MANAGEMENT UNITS	16
VII. OTHER RELEASE INFORMATION	39
VIII. SUMMARY OF SUGGESTIONS FOR FURTHER ACTION	40
IX. REFERENCES	41

X. ATTACHMENTS

- A. Preliminary Review Report
- B. Visual Site Inspection Trip Report
- C. Visual Site Inspection Field Notes
- D. Photograph Log
- E. Preliminary Review Notepad

I. EXECUTIVE SUMMARY

Franklin Manufacturing Company (Franklin) is a freezer manufacturer located in the northwest part of St. Cloud, Minnesota. Portions of the facility were built in the early 1900's by Pan Automobile Company. This company produced automobiles for only a few years before becoming bankrupt. Franklin purchased the site in 1946, and has added several new buildings since that time.

The facility is located in a well-developed portion of St. Cloud, a city with a population of approximately 30,000. The site is at the east end of an industrial park, but residential areas exist adjacent to the facility. The topography of the area is very flat with only a 10 to 20 foot change in elevation within a mile of the facility.

Franklin submitted a Part A notification in 1980 as a hazardous waste storage facility. During the same year, they decided to retract the notification and withdraw from the RCRA system. Subsequently, the Minnesota Pollution Control Agency (MPCA) determined Franklin was a hazardous waste storage facility and granted the facility interim status. Franklin is now trying to close their storage units and revert to generator status.

The Preliminary Review/Visual Site Inspection identified 16 SWMUs (Table 1). Two of the SWMUs were RCRA regulated units and the remainder are a variety of inactive and active units.

The SWMU of primary concern for release is the Former Wastewater Lagoon (SWMU 13). This lagoon received waste phosphatizer and paint system wastewaters from 1965-1979. There is a high potential that groundwater contamination occurred from this unit, due to hydraulic connections between the lagoon and the water table. Private drinking water wells exist within one-quarter mile downgradient of this unit. Due to these facts, it is suggested that groundwater sampling be conducted to determine the nature and extent of contamination.

TABLE 1
Solid Waste Management Units at
Franklin Manufacturing Company

<u>SWMU Number</u>	<u>Name</u>
Container Storage Areas:	
1	*Flammable Hazardous Waste Container Storage Area
2	*Non-Flammable Hazardous Waste Container Storage Area
3	Incinerator Ash Container Storage Room
4	Former Incinerator Ash Container Storage Area
5	Empty Drum Storage Area
6	Spent PCB-Capacitor Storage Vault
Tanks:	
7,8,9	Paint System #2 Wastewater Tanks
10,11,12	Paint System #4 Wastewater Tanks
Surface Impoundments:	
13	Former Wastewater Impoundment
Landfills:	
14	Former Demolition Debris Landfill
Incinerators:	
15	Blu-Surf Incinerator
Miscellaneous:	
16	Process Wastewater Sewers and Gutters

* Currently a RCRA-regulated unit.

II. INTRODUCTION

A RCRA Facility Assessment (RFA) was conducted for the Franklin Manufacturing Facility in St. Cloud, Minnesota to identify solid waste management units and other areas of concern and to evaluate their potential for release of hazardous waste or hazardous constituents to the environment.

This report represents the results of the Preliminary Review (PR) and Visual Site Inspection (VSI) for this facility. The PR included a review of available information from files at EPA Region V and the MPCA. The results of the PR are summarized in Attachment A. Nine Solid Waste Management Units (SWMUs) were identified during the PR. A Visual Site Inspection (VSI) was performed to clarify and add information about the facility. As a result of the VSI, SWMUs 7, 8, 9, 10, 11, and 12, which are Paint System Wastewater Tanks, and the Spent PCB-Capacitor Storage Vault (SWMU 6) were added. One SWMU, the Waste Bonderite Storage Tank, was deleted as it was determined to be a series of process tanks rather than waste tanks. Several SWMUs were renamed based on information collected during the VSI. The Former Container Storage Area became the Former Incinerator Ash Container Storage Area (SWMU 5). The Waste Storage Area Behind the Paint System Building (SWMU 8 in the PR) became the Empty Drum Storage Area (SWMU 5 in this report). The Former Landfill (SWMU 9 in the PR) became the Former Demolition Debris Landfill (SWMU 14 in this report). No areas of concern were identified during the VSI.

No information was available in the file material from the state and the EPA region concerning the prior owner of the site, Pan Automobile Company. The Franklin representative could provide no other information about this company other than that they constructed the Main Plant Building. No SWMUs or other areas of concern specific to the Pan Automobile Company were identified during the VSI. Because of the lack of information regarding the former owner of the site, this RFA is limited in scope to the facility operations and waste management activities of the Franklin Manufacturing Company.

III. FACILITY AND PROCESS DESCRIPTION

A. General Information

The Franklin Manufacturing Company facility occupies approximately 61 acres in the northwestern portion of St. Cloud, Minnesota. The majority of the facility is bounded by 33rd Avenue on the east, 8th Street North on the north, Highway 12 Right-of-Way on the west, and railroad tracks on the south (Figure 1 and 2). The land uses near the facility include residential and commercial (e.g. warehouses and parking lots).

The main plant building was originally built in early 1900's by the Pan Automobile Company. The automobile company went bankrupt after only a few years of operation. It is unknown if any SWMUs or other areas of concern were present during this time or before Franklin purchased the property.

Franklin Manufacturing purchased the property in 1946 (Ref. 2) and has added several manufacturing buildings and transportation access areas over the years. Currently, Franklin is owned by the White Consolidated Industries (Ref. 2).

Since purchasing the site, Franklin has manufactured freezers exclusively. The entire manufacturing process is completed at this site. The process includes a variety of activities from forming the metal shell and plastic liner to insulating and assembling the final product (Ref. 3).

Franklin entered the RCRA system in 1980 when it submitted a Part A notification (Ref. 1 and 3). Subsequently, the company decided to withdraw the notification, because of the group delisting of F017 (Paint System Residues) (Ref. 3). During a RCRA inspection in 1982, MPCA personnel determined that Franklin was storing spent solvents for longer than 90 days (Ref. 4). MPCA informed Franklin that it qualified as a hazardous waste storage facility and granted the facility interim status. Subsequently, Franklin requested

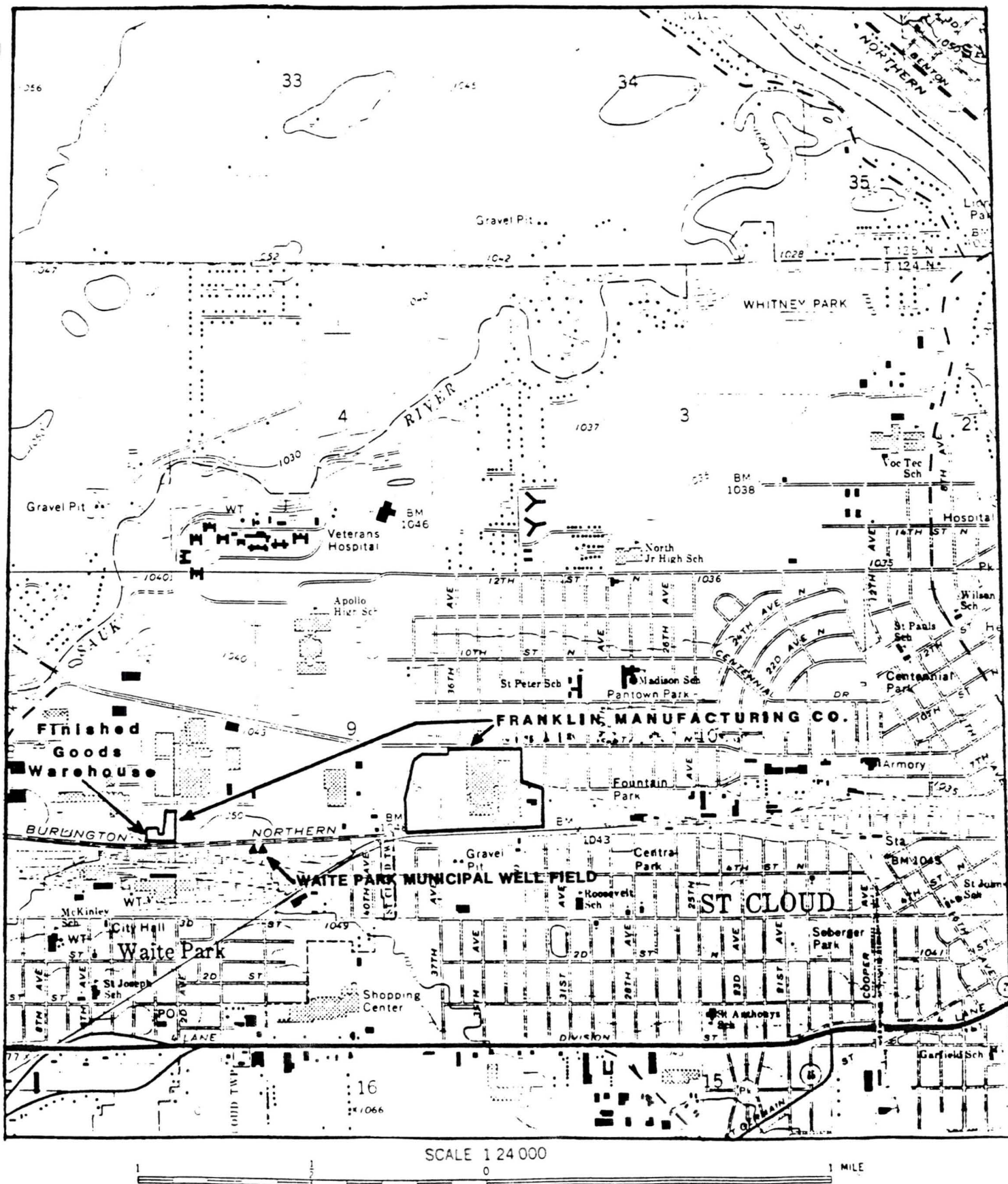


Figure 1
Location of Franklin Manufacturing Company (Ref. 1)

Solid Waste Management Units at
Franklin Manufacturing Company

- | SWMU Number | Name |
|---------------------------------|------------------------------------------------------|
| Container Storage Areas: | |
| 1 | Flammable Hazardous Waste Container Storage Area |
| 2 | Non-Flammable Hazardous Waste Container Storage Area |
| 3 | Incinerator Ash Container Storage Room |
| 4 | Former Incinerator Ash Container Storage Area |
| 5 | Empty Drum Storage Area |
| 6 | Spent PCB-Capacitor Storage Vault |
| Tanks: | |
| 7, 8, 9 | Paint System #2 Wastewater Tanks |
| 10, 11, 12 | Paint System #4 Wastewater Tanks |
| Surface Impoundments: | |
| 13 | Former Wastewater Impoundment |
| Landfills: | |
| 14 | Former Demolition Debris Landfill |
| Incinerators: | |
| 15 | Blu-Surf Incinerator |
| Miscellaneous: | |
| 16 | Process Wastewater Sewers and Gutters |

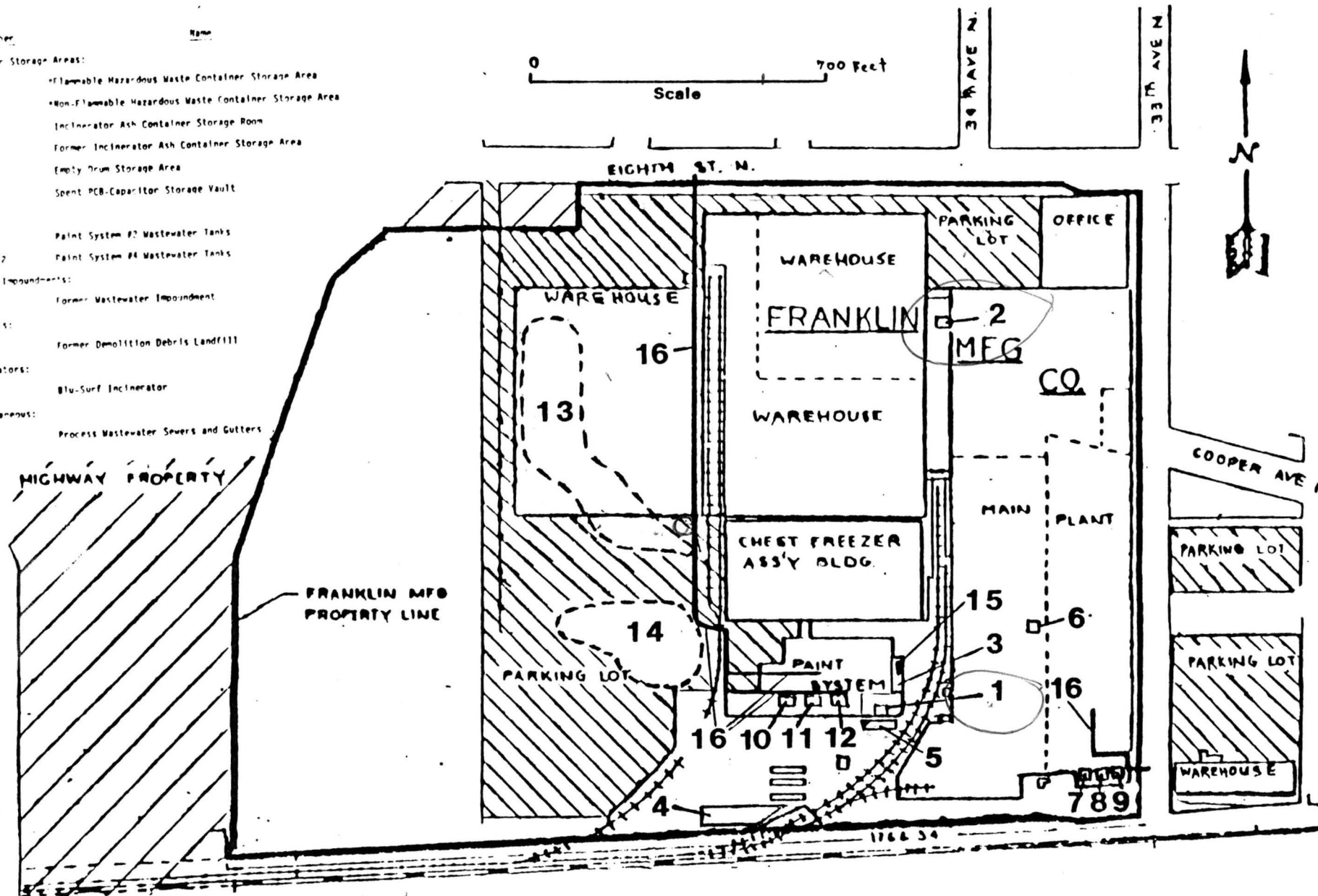


Figure 2
Location of SWMUS (Modified From Ref. 1).

that it be allowed to close its hazardous waste storage areas and receive generator status (Ref. 5).

The PR/VSI identified 16 SWMUs at the Franklin facility (Table 1). The locations of the SWMUs are shown on Figure 2.

B. Waste Streams

Franklin generates several wastes containing hazardous constituents; these are listed in Table 2 (Ref. 1, 6, 7 and 8). Nearly all of the wastes generated at Franklin are shipped off site. Only the Waste Bonderite and Paint System Wastewater are disposed on-site by discharging them to the Process Wastewaters Sewers and Gutters (SWMU 16), which drain to the municipal sewer system (Ref. 7, 8, and 9).

The EPA-listed wastes are containerized in 55 gallon drums and stored at either of the two hazardous waste container storage areas (SWMUs 1 and 2). The drums containing D001 wastes are stored at the Flammable Hazardous Waste Storage Area (Ref. 7). The remainder are stored at the Non-Flammable Hazardous Waste Storage Area.

Other wastes containerized in drums and stored on-site include the Paint System Wastewater Sludge, Blu-Surf Ash and Waste Lube Oil. The drums containing the ash are stored in the Incinerator Ash Container Storage Room (SWMU 4) until shipment off-site. The drums of Wastewater Sludge and Waste Lube Oil are stored in an area adjacent to the Non-Flammable Hazardous Waste Container Storage Area (SWMU 2).

The spent PCB-containing electrical equipment is generated sporadically as this equipment is replaced. The spent equipment is stored in a vault (SWMU 6) until shipment off-site.

TABLE 2

Wastes Generated at Franklin Manufacturing Company

<u>Waste Name</u>	<u>EPA Waste Code</u>
Paint Solvent (Toluene, Xylene)	D001, F005
Degreasing Solvent (Mineral Spirits)	D001
Blu-Surf Ash	-
Waste Lube Oil	-
Halogenated Solvent (Methylene Chloride Foam Flush)	F002
Mold Stripper Solvent (Methyl Ethyl Ketone)	F002
Waste Bonderite	-
Toluene Diisocyanate	U223
Waste Resin (Chlorotrifloromethane)	F002
Mold Stripper Solids	F002
PCB Transformers	-
PCB-Capacitors	-
Diphenylmethane Diisocyanate	D003
Paint System Wastewater	-
Paint System Wastewater Sludge	-

IV. ENVIRONMENTAL SETTING

A. Climate and Meteorology

St. Cloud is located in a temperate climatic zone. Average daily temperatures for January and July are 7.0 °F and 69.8 °F, respectively (Ref. 10, pg 73). The prevailing winds are from the southwest during the summer and northwest during the winter. The 30-year average precipitation is 27.72 inches per year (Ref. 10, pg. 91).

B. Floodplain and Surface Water

The nearest surface water is a manmade pond with no outlet located 300 feet northwest of the facility, just south of Apollo High School. The next nearest surface water is the Sauk River located approximately one mile north-northwest of the Franklin facility (Ref. 1). The Sauk River enters the Mississippi approximately 2 miles northeast of the facility. Storm waters from the municipal stormwater sewer systems in the area of the plant empty into these two water bodies (Ref. 11).

Franklin's facility is not located within the 100-year floodplains of either of the rivers.

C. Geology and Soils

Franklin is located on a large glacial outwash plain. The topography of the area is very flat with only a 10 to 20 foot change in elevation within a mile of the facility (Figure 1).

Other information on the geology and soils at the Franklin site is minimal and limited to two sources. One source is a soils investigation completed during closure of the Former Wastewater Lagoon (SWMU 13) in 1979 (Ref. 12). The other source is a hydrogeological study of groundwater contamination at the municipal well field for Waite Park, Minnesota located one-half mile southwest of Franklin's plant (Figure 1) (Ref. 13).

The geology in the area of the Franklin site consists of approximately 120 feet of glacial drift over granitic bedrock (Ref. 13, pg 2-11).

The general stratigraphy of the drift, as inferred from the Waite Park study, consists of four layers (Figure 3). The uppermost layer is a 0 to 61 foot thick layer of fine-to-medium-grained outwash sand with layers of gravel. The second layer is composed of silty clay thought to represent till reworked by flowing water. This layer is from 4 to 37 feet thick. The next lower layer consists of 5 to 60 feet of medium-grain sand with traces of gravel. The layer immediately above bedrock is a clayey till of from 4 to 83 feet in thickness.

The borings completed on Franklin's property confirm the shallow (<40 feet deep) stratigraphy found in the Waite Park study. In the area of the former impoundment, the uppermost materials consist of 2 to 30 feet of sandy outwash (Ref. 12). The average thickness of the outwash layer is at least 18 feet and may be thicker as many of the borings bottom in this layer. The deeper borings (20 to 40 foot depths) generally bottom in clayey till containing a trace of gravel and some cobbles or boulders.

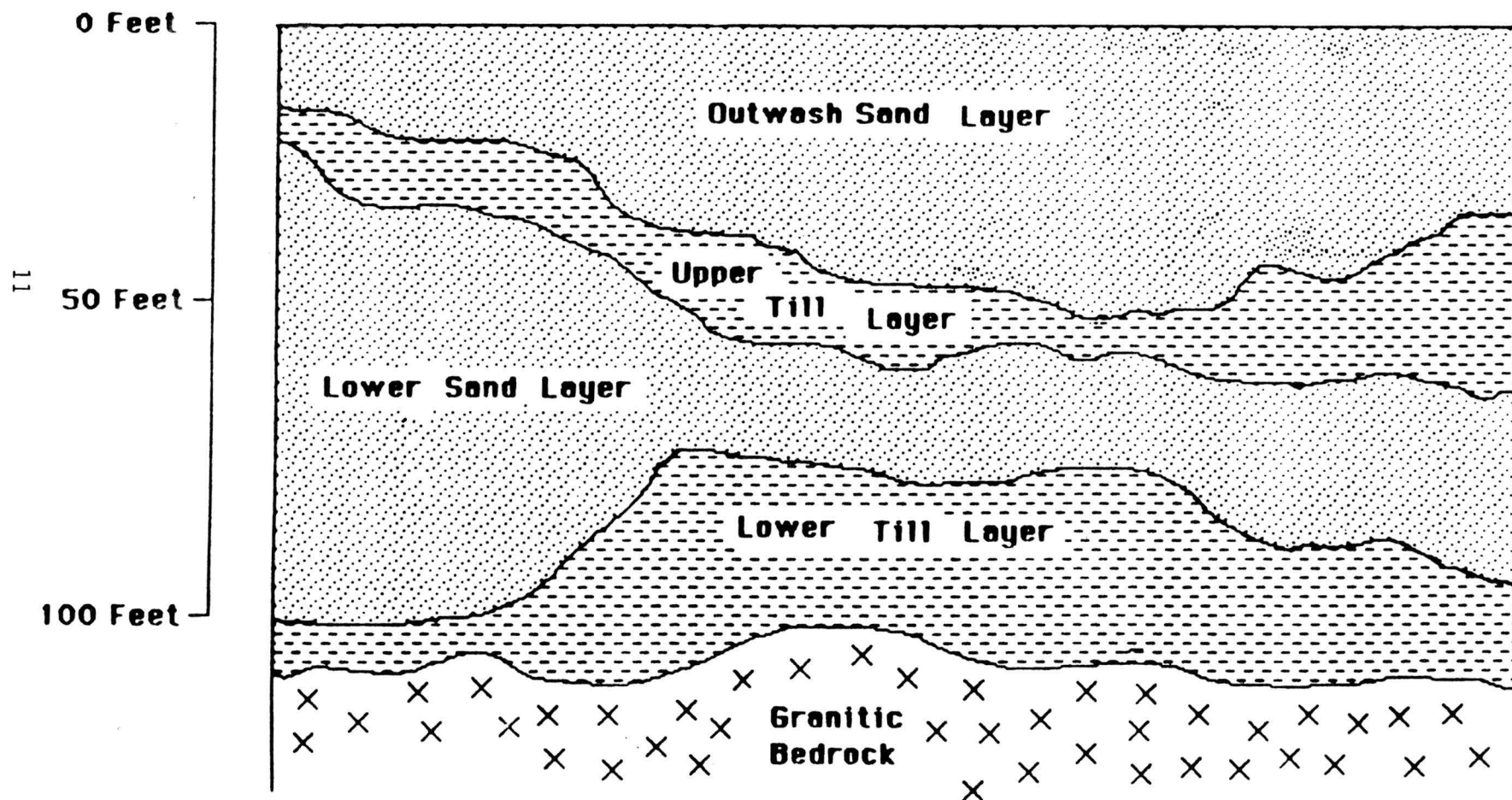
D. Groundwater

Groundwater in the area is present in the saturated portions of the drift, consisting of the entire thickness except the top 10 to 15 feet (Ref. 12 and 13, pg. 2-1). Pumpable quantities are available in the outwash sands near the surface and the lower sand layer. The upper till layer is an ineffective aquiclude and allows considerable hydraulic connection between the two sand layers, as demonstrated in the Waite Park study.

Regionally, groundwater flows northeast and discharges in the Sauk and Mississippi Rivers (Ref. 3 and 13). In the past, however, groundwater may have flowed southwest as a result of pumping at Waite Park municipal well field which consists of two wells (Ref. 13, pg. 3-21, and Ref. 14). The wells are no longer operating (Ref. 14).

Depth
Below
the
Surface

Figure 3. Generalized cross-section from the Waite Park study (Ref. 13).



The watertable beneath the Franklin plant is fairly shallow and within 10 feet of the surface. This information is inferred from the borings taken during closure of the Former Wastewater Lagoon (SWMU 13) (Ref. 12). The borings illustrate that the watertable was at the surface during the operating life of the impoundment (1965-1979). In fact, an earlier aerial photo by the Soil Conservation Service (Ref. 15) indicates that the lagoon was formerly either a gravel pit or natural depression containing wetland vegetation. After excavation of the impoundment in 1979, fill was hauled in and a warehouse was constructed at that location (Ref. 2, 3, 12). The present depth to the water table is based on topography observed during the VSI and the borings taken on the property.

E. Receptor Information

Franklin is located at the east end of an industrial park within the St. Cloud city limits (Ref. 1). The industrial park extends one mile west and southwest from Franklin. Well-developed residential areas exist north, northeast, south, and southeast of the facility. The residential areas north and northeast of the plant are directly across 8th Street North and extend north one mile and northeast for two miles. The major portion of St. Cloud, which has a population of approximately 30,000, lies to the southeast of the facility.

Although city water lines run throughout this portion of St. Cloud, many homes do not have city water (Ref. 16). These homes use private wells for a source of drinking water, and most of the wells are shallow with depths of less than 25 feet (Ref. 11). Franklin sampled two such wells in 1979 as part of their lagoon closure (Ref. 17). The two wells are located approximately 700 and 800 feet north (downgradient) of Franklin's property line (Figure 4). The samples were analyzed only for conventional pollutants and metal, including total chromium, and no analysis for any organics were included (Ref. 17). The analysis found total chromium below the detection limit of 0.05 mg/l. No other parameters were reported above detection limits.

V. RELEASE PATHWAYS

A. Soil/Groundwater

Releases of wastes to the soil have the potential to contaminate a large amount of groundwater. This is due to the shallow water table and the moderate to high permeability of the near-surface outwash sand and gravel. The extensive interlayering of outwash and till layers, as shown by the Waite Park study, would provide paths for contamination to reach deeper sand layers. Regional groundwater flow would tend to spread contamination northeast; however, withdrawals at the Waite Park wells could have allowed contaminated groundwater to flow southwest.

A current waste management practice that has a potential to release to soil or groundwater is the discharging of process wastewaters to the process sewers. The facility has several process sewer lines (SWMU 16), some of which are at least 25 years old; these could leak and contaminate soil and groundwater.

Another current waste management practice that has the potential to contaminate soil and groundwater, is the storing of "empty" product drums on bare soil (SWMU 5). Small amounts of residue chlorinated and non-chlorinated solvents could leak onto the soil.

Another release potential is that from the past waste management practice of discharging of process wastewaters to the unlined lagoon for 14 years. The wastewaters contained a variety of hazardous constituents (see unit description for the Former Wastewater Lagoon - SWMU 13). In addition, the lagoon was in direct hydraulic connection with the groundwater. Therefore, it is likely that the lagoon contaminated groundwater with hazardous constituents.

The potential for releases to soil and groundwater from other waste management activities at the facility is low, due to release controls.

B. Surface Water

Because the facility is located over one-half mile from the nearest body of surface water, the municipal sanitary and stormwater sewers, which discharge to area rivers, are the only potential pathway for releases to reach surface water. Accidental releases to these sewers from past and current waste management practices are not likely to have occurred nor are they likely to occur in the future.

C. Air

Releases to the air occur at the facility from several units including the Paint System Wastewater Tanks (SWMUs 7, 8, 9, 10, 11, and 12) and the Blu-Surf Incinerator (SWMU 15). The releases result from air emissions at the units being vented directly to the atmosphere.

D. Subsurface Gas

No sources for the generation of subsurface gas were identified during the PR/VSI.

VI. SOLID WASTE MANAGEMENT UNITS

1. Unit Name: Flammable Hazardous Waste Container Storage Area

Unit Description: This RCRA-regulated unit is a 15 by 20 foot floor area located midway along the south wall of a room in the paint system building. The concrete floor area is marked by a Hazardous Waste Area sign, and red paint strips along the wall and concrete floor. Wastes are stored in closed 55 gallon drums. During the VSI, approximately 20 drums were observed in the storage area. (see Photographs 12 and 13; Attachment D).

Date of Start-up: The area was first used to store wastes in 1972, and was officially designated as a hazardous waste area in 1980 (Ref. 3).

Date of Closure: This unit is active. The facility is in the process of closing the unit, but plans to continue the storage of wastes at this unit for less than 90 days (Ref. 18).

Wastes Managed: The unit stores waste solvents in 55 gallon drums. The solvents include: toluene, xylene, and non-halogenated mineral spirits.

Release Controls: The building is equipped with a sprinkler system, and all doorways to the unit are protected by 4" containment curbs. The concrete floor slopes to a central drain which is connected to the process sewer (SWMU 16). During the VSI, the facility representative indicated the drain was intentionally plugged (Ref. 3). The concrete floor was observed to be in good condition during the VSI.

History

of Releases: None noted in the information available for this review. No evidence of releases were observed during the VSI.

Conclusions:

Soil/Groundwater: Based on the design of the unit (enclosed in a building), there is low potential for release to soil or groundwater. Additionally, the concrete floor is in good condition and any spills would be contained by the curbs and the sloped floor.

Surface Water: Based on the design and release controls of this unit, there is very low potential for release to surface water.

Air: Because the drums are in good condition, closed, and located indoors the potential for release to the air is low. In the event of a spill, the wastes would be confined to the indoor air and would not likely release to the environment in volumes of concern.

Subsurface Gas: Because this is an above-ground unit, there is no potential for generation of subsurface gas.

Suggested

Further Action:

No further action is suggested at this time, other than normal RCRA inspections and closure monitoring.

2. Unit Name: Non-Flammable Hazardous Waste Container Storage Area.

Unit Description: This RCRA-regulated unit is located within the covered building which connects the Main Plant with the north warehouse (see Photographs 22 and 23; Attachment D). The concrete-floored unit is divided into three areas by metal fencing. One area is enclosed by 8 foot high metal fencing and is approximately 15 by 20 feet. This area contains "small quantity" hazardous wastes that include: unreacted waste resin, diphenylmethane diisocyanate, and waste paints in approximately twelve 55 gallon drums, thirty 10 gallon plastic containers and forty 1 gallon cans, respectively. A second area is located just west and outside the padlocked gate of the first area. The area is also approximately 15 by 20 feet in dimensions and is separated from a loading dock by a 4 foot high fence with a gate. This second area contains reacted waste resin and virgin alcohol both in 55 gallon drums. The third area is just south of the other two areas and has dimensions of approximately 45 feet by 30 feet. This area is not fenced in and is open to the rest of the loading dock area. During the VSI, the third area contained approximately forty-five 55 gallon drums of waste methylene chloride, waste oil, paint system wastewater sludge, and virgin methylene chloride.

Date of Startup: 1980 (Ref. 3).

Date of Closure: This is an active unit. The facility is in the process of closing the unit, but would continue to store wastes at this unit for less than 90 days (Ref. 18).

Waste Managed: Hazardous wastes managed include: 55 gallon drums of waste resins, methyl ethyl ketone, (mold stripper solvent and solids), and methylene chloride, and 10 gallon plastic containers of diphenylmethane diisocyanate (Ref. 3). In addition, there are 1 gallon cans of waste paint that may

be hazardous because of lead or chromium pigments. 55 gallon drums of paint system wastewater sludge and waste oil are the "non-hazardous" wastes stored in this area.

Release Controls: The floor is concrete and slopes to a central drain, which is connected to the process sewer (SWMU 16), (Ref. 3). During the VSI, the facility representative indicated that the drain was intentionally plugged. The doorways, however, are not protected by containment curbs. The concrete floor was observed to be in good condition during the VSI.

History

of Releases: None noted in the information available for this review. No evidence of releases were observed during the VSI.

Conclusions: Soil/Groundwater: Based on the design of the unit (enclosed in a building) the potential for release to soil or groundwater is low. Additionally, the concrete floor is in good condition and slopes toward a central drain.

Surface Water: Based on the design and release controls of this unit, the potential for release to surface water is low.

Air: Because the drums are closed and located indoors, the potential for release to air is low. In the event of a spill, waste would be confined to the indoor air and would not likely release to the environment in volumes of concern.

Subsurface Gas: Because this is an above-ground unit, there is no potential for generation of subsurface gas.

Suggested

Further Action: No further action is suggested at this time other than normal RCRA inspections and closure monitoring.

3. Unit Name: Incinerator Ash Container Storage Room

Unit Description: This unit is a large room within the Paint System Building. The 120 foot by 30 foot room is entirely enclosed and has a concrete floor. The room is used for the storage of 55 gallon drums of ash from the Blu-Surf Incinerator (SWMU 6), which is also located in this room. During the VSI, 10 uncovered drums of ash were present along the west wall of the room (Attachment D, Photo #16).

Date of Startup: Unknown.

Date of Closure: This unit is still active.

Wastes Managed: Ash from the incineration of paint residue from paint hooks in the Blu-Surf Incinerator. The paints contain nickel and titanium based pigments (Ref. 3).

Release Controls: The floor of the unit is concrete and was observed to be in good condition during the VSI.

History

of Releases: None noted in the information available for this review. No evidence of releases were observed during the VSI.

Conclusions: Soil/Groundwater: Based on the design of this unit (enclosed in a building with a concrete floor) there is a low potential for release to soil or groundwater.

Surface Water: Based on the design of this unit, there is a low potential for release to surface water.

Air: Due to the nature of the waste, there is a low potential for release to the air.

Subsurface Gas: Because this is an above-ground unit, there is no potential for the generation of subsurface gas.

Suggested

Further Action: No further action is suggested at this time.

4. Unit Name: Former Incinerator Ash Container Storage Area

Unit Description: This unit was located along the perimeter fence at the southern boundary of the facility (Ref. 3). The unit was open, unlined, and approximately 100 feet long and 20 feet wide. During the VSI, the unit was observed to be grass-covered with no remaining visual evidence of waste storage (Photograph 9; Attachment D).

Date of Startup: 1980 (Ref. 3).

Date of Closure: This unit has not been used since 1982 (Ref. 3 and 19).

Wastes Managed: This area stored incinerator ash from Franklin's Blu-Surf Incinerator and Midway Iron's incinerator. (Franklin had sent paint wastes to Midway Iron for incineration and received ash from Midway in return.) Although the ash from both incinerators contained lead, they were determined to be non-hazardous by EP toxicity tests (Ref. 20). The ash was contained in 55 gallon drums stored at this unit. The maximum number of drums was approximately 800. The drums reportedly were disposed at the Elk River Sanitary Landfill in 1982, as approved by MPCA (Ref. 19 and 21).

Release Controls: This grass-covered area had no release controls.

History
of Release: None noted in the information available for this report. No evidence of release was observed during the VSI.

Conclusions: Soil/Groundwater: The unit currently has no potential for release to soil or groundwater because it is not currently being used. During its period of operation, there was a low potential for releases to soil or groundwater, due to precipitation coming in contact with the waste and percolating into the soil. Even if this occurred, the release potential would be low, because of the low concentration of

of hazardous constituents in the waste and the short period of use of this unit.

Surface Water: Because there were no surface waters or stormwater sewers within 200 feet of this unit the past and on-going potential to release to surface water is low. In addition, precipitation would not run off, but would percolate into the soil.

Air: This unit currently has no potential for releases to the air because it is not currently being used. During its period of operation, there was a low potential for release of particulate matter if the drums were left uncovered. The magnitude of this release would have been small, based on the nature of the waste.

Subsurface Gas: Because this is an above-ground unit, there is no potential for the generation of subsurface gas.

Suggested

Further Action: No further action is suggested at this time.

5. Unit Name: Empty Drum Storage Area

Unit Description: This unit is located outside along the south wall of the Paint System Building. The unit is a partially grass-covered area used for storage of empty 55-gallon drums. The drums are mainly stacked against the wall of the building, but several were strewn about at the time of the VSI (see Photographs 7 and 8; Attachment D). Most of the drums appeared to be in good condition and no evidence of leakage was evident. All of the approximately 80 drums were covered and sealed.

Date of Start-up: Unknown.

Date of Closure: This unit is still active. ✓

Wastes Managed: This unit handles empty chemical storage drums prior to shipment back to the chemical supplier (Ref. 3). Most of the drums were metal, but some were plastic. The chemicals in the drums include a variety of organic solvents and resins. None of the drums are rinsed prior to storage at this unit.

Release Controls: No release controls are present. The unit consists of a strip of partially grass-covered soil.

History

of Release: No releases were noted in the material available for this review. There was no evidence of release during the VSI.

Conclusions: Soil/Groundwater: Because there are no release controls on this unit, there is a potential for releases to soil from leaks in the drums. If there was a release to the soil, there is a potential for a release to groundwater from precipitation percolating downward.

Surface Water: This unit does not have a potential to affect surface water because of the small amount of waste managed and the long distance to any surface water.

Air: There is a potential for releases to the air from leaks in the drums; however, because of the small amount of waste involved the releases would be very small.

Subsurface Gas: There is no potential for releases of subsurface gas because the unit is entirely above-ground.

Suggested

Further Action:

Determine if the soil is contaminated by taking appropriate soil samples.

6. Unit Name: Spent PCB-Capacitor Storage Vault

Unit Description: This unit is located within and near the center of the Main Plant Building. It consists of a concrete-walled room with dimensions of approximately 8 feet by 12 feet and 20 feet in height (see Photograph 6; Attachment D). The room has a concrete floor and access is through a small bolted and locked door on the west side. The room currently contains operating transformers and capacitors. During the VSI, there was no sign present indicating the possible presence of PCBs. The unit apparently is not permitted.

Date of Start-up: Waste capacitors were stored in this room for a short time in 1984 and 1985 (Ref. 3). The room was probably constructed at the same time as the Main Plant Building in the early 1900s.

Date of Closure: Currently inactive (see Date of Start-up).

Wastes Managed: This unit was used for the temporary storage of spent PCB-capacitors prior to shipment off-site.

Release Controls: The room has a concrete floor and is curbed at the doorway. During the VSI, the floor was observed to be in good condition, but did contain some hairline cracks.

History

of Releases: The floor of the unit exhibited evidence of minor staining, but no releases from the unit were noted during the VSI or in the material available for this report.

Conclusions: Soil/Groundwater: This unit has had a low potential for releases to the soil, through small cracks in the floor of the unit. However, it is likely that the amount of release would be minimal because of the small size of the cracks and the general good condition of the floor. The potential for release to groundwater would also be low.

Surface Water: This unit has no past or on-going potential for release to surface water because the unit is enclosed in a building.

Air: This unit has no past or on-going potential for release to air because of the nature of the waste.

Subsurface Gas: This unit has no past or on-going potential for release of subsurface gas because the unit is entirely above grade.

Suggested

Further Action: No further action is suggested at this time.

7,8,9. Unit Name: Paint System #2 Wastewater Tanks

Unit Description: Three open-topped tanks are located in the southeast corner of the Main Plant Building (see Photograph 3, Attachment D). Each tank has approximate dimensions of 30 feet by 10 feet by 2 feet deep. The tanks are each part of a paint booth used to paint the freezers. The tanks have drains to gutters located adjacent to the tanks.

Date of Startup: Unknown, but the Main Plant building was constructed in the early 1900s (Ref. 1).

Date of Closure: Still active.

Wastes Managed: These tanks contain paint system wastewaters which are used to collect enamel paint overspray from robotic spray guns. The overspray is collected by a "curtain" of wastewater on one wall of the spray booth. The wastewater is recycled until it is discharged to the nearby gutter and then to the process sewers. The wastewater is routed through a centrifuge to collect solids before it is discharged to the gutter.

Release Controls: The steel-walled tanks are located above grade on the concrete floor within the building. Air emissions from the paint booths are vented outside without emission control treatment. The emissions are unpermitted.

History

of Releases: No releases were noted in the information available for this report. No releases were observed during the VSI.

Conclusions: Soil/Groundwater: These units have a low potential for release to the soil or groundwater, because of the secondary containment provided by the concrete floor.

Surface Water: These units have no potential for inadvertent releases to surface water because the units are entirely contained within a building.

Air: These units have a potential to release organic solvent vapors to the air via the paint booth venting systems.

Subsurface Gas: These units have no potential for the release of subsurface gas, because they are entirely above ground.

Suggested

Further Action:

MPCA is planning to permit the air emissions in the future (Ref. 22). The air emissions from the tanks should be evaluated to determine the concentrations of hazardous constituents.

10,11,12. Unit Name: Paint System #4 Wastewater Tanks

Unit Description: Three open-topped tanks are located in the southwestern portion of the Paint System Building. The three tanks have approximate dimensions of 40 feet by 10 feet by 2 feet deep. The tanks are each part of a paint booth used to paint freezers. The tanks have drains to gutters located adjacent to the tanks.

Date of Start-up: Unknown, but the Paint System Building was constructed sometime before 1958 (Ref. 13).

Date of Closure: These units are still active.

Wastes Managed: These units manage the same wastes as those in Paint System #2 Wastewater Tanks (SWMUs 7, 8 and 9). The only difference between the two systems is that Paint System #4 has manually-operated spray guns.

Release Controls: The steel-walled tanks are located within the Paint System Building and recessed approximately two feet below grade; however, the concrete floor does extend under the tanks. Air emissions from the paint booths are vented outside without emission control treatment. The emissions are unpermitted.

History
of Releases: No releases were noted in the information available for this report. No releases were observed during the VSI.

Conclusions: Soil/Groundwater: These units have a low potential for releases to soil or groundwater, because of the secondary containment provided by the concrete floor.

Surface Water: These units have no potential for inadvertent releases to surface water, because the tanks are entirely within a building.

Subsurface Gas: These units have no potential for the release of subsurface gas, because they are entirely above ground.

Suggested

Further Action:

MPCA is planning to permit the air emissions in the future (Ref. 22). The air emissions from the tanks should be evaluated to determine the concentrations of hazardous constituents.

13. Unit Name: Former Wastewater Lagoon

Unit Description: The lagoon was irregularly shaped with approximate dimensions of 100 feet by 350 feet at the time it was closed (Ref. 15). Prior to at least 1973 the lagoon was much larger with a width of approximately 250 feet (Refs. 13 and 15). Apparently, some type of fill material was used to reduce the size of the lagoon. Prior to its use by Franklin the pond was either a natural or man-made depression that was filled with wetland vegetation (Ref. 15). Currently, a warehouse and parking lot exist at the site of the former lagoon. The pond was unlined and bottomed in sand and gravel outwash (Ref. 11). During closure of the lagoon, the bottoms were excavated to an average depth of two feet (Ref. 2). The excavated materials were transported off-site for disposal.

Date of Startup: 1965 (Ref. 23).

Date of Closure: 1979 (Ref. 2, 3, 12, 23).

Wastes Managed: The lagoon received waste Bonderite solution and paint system wastewaters (Ref. 3). The former contained up to 340 ppm hexavalent chromium (Ref. 8) at the time it was being discharged to the lagoon. {During the VSI, the facility representative provided an analysis that showed trace concentrations (<5.2 ppb) of methylene chloride, trichlorofluoromethane, chloroform, bromodichloromethane, toluene, and tetrachloroethylene in the Bonderite wastewaters.} The paint system wastewaters contained overspray from spray guns using enamel-based paints. Franklin used a chromium/lead paint until 1980 (Ref. 24); thus, the paint system wastewaters contained concentrations of these two constituents. In addition, the wastewater probably contained appreciable amounts of the organic solvents (e.g. toluene, xylene, MEK) used in the enamel paints. This is

supported by analysis of wastewaters from the paint booth which had a biochemical oxygen demand (BOD) of 1120 (Ref. 9). However, during the VSI, the facility representative differed with this and stated they "never detected solvents in the wastewater from the paint booth." He provided an analysis that showed <1% solvents, but provided no other evidence that the wastewaters had been analyzed for individual solvent constituents. Therefore, the BOD level provides substantial evidence that solvents were present in the paint system wastewaters.

Release Controls: There are no release controls for this unit.

History

of Releases: Borings taken at the time of closure contained concentrations of up to 18,000 ppm total chromium in the pond sludges. Contamination extended to at least two and one-half feet below the surface where a concentration of 1200 ppm total chromium was found in one borehole.

Conclusions:

Soil/Groundwater: The evidence that the soil was contaminated by the lagoon is presented above. The excavation of the pond bottoms to an average of 2 feet below the surface removed the soil which was most heavily contaminated with chromium. However, contamination by lead and organic solvents certainly extended to deeper soils. In addition, it is concluded that the lagoon has contaminated the groundwater because of the direct hydraulic connection between the water table and the lagoon. The moderate to high permeability of the near-surface outwash sands would allow the groundwater contamination to travel moderately fast even with low hydraulic gradients. Based on the direction of groundwater flow, the plume could extend to the northeast; although this may be complicated by water withdrawals at the Waite Park municipal wells.

Surface Water: There is currently no potential for release to surface water because the unit is closed. During the period of operation, there was a low potential for release to surface water via the municipal stormwater sewers. This would only have occurred if the pond overflowed, which was unlikely due to the highly permeable soils below the pond.

Air: There is currently no potential for release to air because the unit is closed and covered by a warehouse and parking lot. During the period of operation there were likely fugitive releases of organic solvents to the air.

Subsurface Gas: There is currently no potential for the generation of subsurface gas, because the pond sludges were removed. During operation, there was low potential for the generation of subsurface gas due to low organic content of the sludges.

Suggested

Further Action:

A subsurface investigation should be conducted to determine the nature and extent of groundwater contamination remaining from operation of the lagoon.

14. Unit Name: Former Demolition Debris Landfill

Unit Description: This unit was located south of the Former Wastewater Lagoon (SWMU 13) and is now covered by a parking lot. The approximate dimensions, as visible in aerial photos (Ref. 13, pg. 19), are 100 feet by 200 feet.

Date of Start-up: Unknown.

Date of Closure: This unit was turned into a parking lot sometime before 1973 (Ref. 13, ppg. 19 and 27).

Wastes Managed: During the pre-VSI meeting with MPCA, Mr. Marcus, representing Franklin, indicated that this unit never received hazardous waste. He based this on plant records and conversations with "old-time" employees (Ref. 2). The only contradiction is a citizen complaint to MPCA (Ref. 25), which indicated a possibility that drums of waste were disposed at this unit; however, the complainant did not appear to be certain of these facts. Due to Mr. Marcus' discussion, it appears that this unit only received demolition-type fill material.

Release Controls: There are no release controls. The unit is unlined.

History

of Release: None noted in the information available for this report. No releases were observed during the VSI.

Conclusions: It appears that this unit never received any hazardous waste or waste containing hazardous constituents; thus there is no potential for the release of hazardous constituents to any media.

Suggested

Further Action: No further action is suggested at this time; however, EPA may wish to confirm that no hazardous waste or wastes containing hazardous constituents were disposed in this unit.

15. Unit Name: Blu-Surf Incinerator

Unit Description: This unit is within the Incinerator Ash Container Storage Room (SWMU 3). The incinerator itself is a metal tunnel about 100 feet long with a conveyor line running through it. The incinerator is approximately 10 feet wide and is positioned along the east wall of the room (see Photograph 14; Attachment D). Gases are vented to the atmosphere by way of a stack.

Date of Startup: Unknown.

Date of Closure: This is an active unit.

Wastes Managed: The incinerator burns dried paint residue off the conveyor line hooks. The resulting ash is considered to be non-hazardous because the paint does not contain chromium or lead (Ref. 21). The ash falls to the floor of the incinerator, and is washed to the north end of the incinerator and filtered through a cheesecloth.

The filtered water drains to the process sewer (SWMU 6) (Ref. 3). The facility representative indicated that the waste feed to the incinerator is less than 100 lbs/hr and does not need an air permit under MPCA rules (Ref. 3).

Release Controls: The floor around the unit is concrete and was observed to be in good condition. There are no air pollution controls on the stack (Ref. 3).

History

of Releases: None noted in the information available for this review. No evidence of release were observed during the VSI.

Conclusions: Soil/Groundwater: Because the unit is indoors and the floor under the unit is concrete the potential for release to soil and groundwater is low.

Surface Water: Because of the design and release controls of the unit there is a low potential for release to surface water.

Air: Because combustion gases and vapors from the incinerator are emitted to the outside air via the stack, there is a high potential for release to air.

Subsurface Gas: Since this unit is above-ground, there is no potential for generation of subsurface gas.

Suggested

Further Action: MPCA apparently is planning to permit this facility in the future (Ref. 22). In the permitting process, it is suggested that emissions from the stack be monitored.

16. Unit Name: Process Wastewater Sewers and Gutters

Unit Description: The process sewers and gutters are an interconnected system with the gutters draining to the sewers. The gutters are one to two feet in depth and width and are found in the Paint System and Main Plant buildings (see Photographs 1, 5 and 18; Attachment D). The process sewers are divided into two main lines (Ref. 3). One line is located under the southeast corner of the Main Plant Building and runs out under 33rd Avenue to meet the municipal sewer system. The other line runs from the west end of the Paint System Building north under other warehouses to meet the municipal sewer line beneath 8th Street North. This line receives wastewater from branch lines and gutters in the Paint System Building.

Date of Startup: This unit has been constructed in phases over several years. The oldest portions were probably built some time before 1960, when most of the buildings were constructed (Ref. 3).

Date of Closure: Still active.

Wastes Managed: This unit handles waste Bonderite solution, paint system wastewaters, and non-contact cooling water. The first two wastes are discharged to these lines under NPDES pretreatment permit (Ref. 3). The Bonderite solution is a phosphatizer that in the past contained up to 340 ppm hexavalent chromium (Ref. 8). Currently, chromium is not used in the solution. The paint system wastewaters contain enamel paint overspray from the paint booths (See SWMU 13 - Wastes Managed).

Release Controls: The gutters are all within enclosed buildings and made of concrete. The sewers are reported to be made of 8 to 10 inch diameter clay tile (Ref. 3). They are located below ground level in all cases.

History

of Releases: None noted in the information available for this report.
No releases were observed during the VSI.

Conclusions: Soil/Groundwater: It is not possible to assess the potential for release to soil or groundwater from the process sewers and gutters without further information on their integrity. If cracks existed in the sewers and gutters there could be releases to soil and groundwater.

Surface Water: There is no potential for inadvertent releases to surface water, because the gutters are within building and the sewers are located underground.

Air: There is a low potential for releases to the air from the open-topped gutters. However, these releases would be small and localized to areas adjacent to the gutters. There is no potential for releases to the air from the sewer line, because they are underground.

Subsurface Gas: There is no potential for the release of subsurface gas, because of the nature of the wastes handled by this unit.

Suggested

Further Action: The integrity of the process sewers and gutters should be determined.

VII. OTHER RELEASE INFORMATION

No additional information regarding spills and/or other releases at the facility was available.

VIII. SUMMARY OF SUGGESTIONS FOR FURTHER ACTION

SWMU 1 - Flammable Hazardous Waste Container Storage Area	No further action is suggested at this time other than normal RCRA inspections and closure monitoring.
SWMU 2 - Non-Flammable Hazardous Waste Container Storage Area	No further action is suggested at this time other than normal RCRA inspections and closure monitoring.
SWMU 3 - Incinerator Ash Container Storage Room	No further action is suggested at this time.
SWMU 4 - Former Incinerator Ash Container Storage Area	No further action is suggested at this time.
SWMU 5 - Empty Drum Storage Area	Determine if the soil is contaminated.
SWMU 6 - Spent PCB-Capacitor Storage Vault	No further action is suggested at this time.
SWMU 7, 8 and 9 - Paint System #2 Wastewater Tanks	Air emissions from the tanks should be monitored through an air quality permit program.
SWMU 10, 11 and 12 - Paint System #4 Wastewater Tanks	Air emissions from the tanks should be monitored through an air quality permit program.
SWMU 13 - Former Wastewater Lagoon	A subsurface investigation should be conducted to determine nature and extent of groundwater contamination.
SWMU 14 - Former Demolition Debris Landfill	No further action is suggested at this time other than confirming that no hazardous waste or other hazardous constituents were disposed in this unit.
SWMU 15 - Blu-Surf Incinerator	Air emissions from the stack should be monitored through an air quality permit.
SWMU 16 - Process Wastewater Sewers and Gutters	Determine the integrity of the sewers and gutters.

IX. REFERENCES

1. Franklin Manufacturing Co., Oct. 2, 1980, Part A Permit Application
2. White Consolidated Industries, Oct. 15, 1986, D. Marcus, personal communications during the pre-VSI meeting at MPCA.
3. Franklin Manufacturing Co., Nov. 13, 1986, D. Clute, personal communication during the VSI.
4. MPCA, March 30, 1982, letter from M. Tibbits to W. Hull (Franklin).
5. Franklin Manufacturing Co., May 23, 1985, letter from R. Clute to T. Townsend (MPCA).
6. MPCA, Dec. 17, 1985, letter from R.E. Massey to R. Clute (Franklin).
7. Franklin Manufacturing Co., Feb. 26, 1986, Annual Report Form for Generation of Hazardous Waste--Calendar Year 1985.
8. Franklin Manufacturing Co., Nov. 6, 1984, Hazardous Waste Disclosure Forms.
9. PACE Laboratories, Inc., Sept. 24, 1979, Technical Report of Wastewater Survey--Bonderite Line #4, Franklin Manufacturing Company; prepared for Franklin.
10. National Oceanic and Atmospheric Administration, 1986, Comparative Climatic Data for the United States through 1985.
11. Pope-Reid Associates, Inc., Jan. 31, 1987, B. Ross memo to RFA file.
12. Braun Engineering--Testing, Aug. 29, 1979, Additional Soils Investigation--Warehouse Addition to Franklin Manufacturing Company; prepared for Franklin.
13. Environmental Research and Technology, Inc., March, 1986, Initial Hydrogeologic Assessment for the Waite Park Site, Waite Park, Minnesota; prepared for MPCA.
14. MPCA, Oct. 1985, Permanent List of Priorities.
15. Soil Conservation Service, 1978, Aerial photos.
16. Pope-Reid Associates, Inc., Feb. 5, 1987, B. Ross phone conversation report of conversation with E. Dunn of the St. Cloud Water Department.
17. PACE Laboratories, Inc., Sept. 18, 1979, Report of Laboratory Analysis on Franklin Pond Soil Borings; prepared for Franklin.
18. MPCA, Dec. 13, 1982, phone conversation record between M. Tibbets and R. Clute (Franklin).

19. Franklin Manufacturing Co., Nov. 11, 1982, letter from D. Clute to R. Baxter (MPCA).
20. PACE Laboratories, Inc., July 6, 1981, letter from W.A. O'Connor to R.Clute (Franklin).
21. MPCA, Oct. 18, 1982, letter from D. Wilkre to L. Kreger (Elk River Sanitary Landfill).
22. Pope-Reid Associates, Inc., Jan. 1981, phone conversation with K. Veach (MPCA).
23. MPCA, Aug. 15, 1985, Executive Summary, Franklin Manufacturing Company.
24. MPCA, March 25, 1981, RCRA inspection report.
25. MPCA, Feb. 7, 1985, Complaint Report.